REMARKS

Claims 1, 4-10 and 15-27 are all the claims pending in the present application. Claim 1 has been amended to incorporate the subject matter of Claim 3. In view of this amendment, Claim 4 has been amended to depend from Claim 1, and Claim 9 has been amended to recite "formula (3)". Claims 2 and 3 have been canceled. No new matter has been added. Accordingly, entry of the present Amendment is requested.

At page 5 of the Office Action, Claims 1-10 and 15-27 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over EP 1344788 (Oguma).

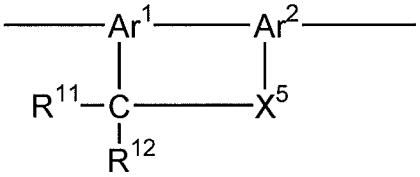
The Examiner cites Oguma as teaching repeating unit 31. The Examiner asserts that repeating unit 31 of Oguma reads on present formula 1, where Ar^1 and Ar^2 are phenyl and X^1 and X^2 are both $C(R^1)(R^2)$. The Examiner further asserts that, since Oguma discloses that any carbon atom can be substituted with a nitrogen atom, sulfur atom or oxygen atom, if one of the two $C(R^1)(R^2)$ in repeating unit 31 is replaced with an oxygen atom, this would read on present formula (3).

Applicants traverse and respectfully request the Examiner to reconsider in view of the following remarks.

Claim 1 has been amended to recite a polymer light emitting material comprising a compound exhibiting light emission from the triplet excited state in the form of a composition with a polymer compound having a repeating unit represented by the formula (3) and having a polystyrene-reduced number-average molecular weight of 10^3 to 10^8.

Specifically, amended Claim 1 recites a polymer light emitting material comprising a compound exhibiting light emission from the triplet excited state in the form of a composition

with a polymer compound having a repeating unit represented by the formula (3) and having a polystyrene-reduced number-average molecular weight of 10^3 to 10^8,



(3)

wherein Ar^1 and Ar^2 each independently represent a trivalent aromatic hydrocarbon group or a trivalent heterocyclic group having adjacent carbon atoms; R^{11} and R^{12} each independently represent a hydrogen atom, halogen atom, alkyl group, aryl group, arylalkyl group or monovalent heterocyclic group; R^{11} and R^{12} may mutually be connected to form a ring; and X^5 represents O, S, C(=O), S(=O), SO_2, $Si(R^3)(R^4)$, $N(R^5)$, $B(R^6)$, $P(R^7)$ or $P(=O)(R^8)$, wherein R^3, R^4, R^5, R^6, R^7 and R^8 each independently represent a hydrogen atom, halogen atom, alkyl group, alkyloxy group, alkylthio group, aryl group, aryloxy group, arylthio group, arylalkyl group, arylalkyloxy group, arylalkylthio group, acyl group, acyloxy group, amide group, acid imide group, imine residue, amino group, substituted amino group, substituted silyl group, substituted silyloxy group, substituted silylthio group, substituted silylamino group, monovalent heterocyclic group, heteroaryloxy group, heteroarylthio group, arylalkenyl group, arylethynyl group, carboxyl group, alkoxycarbonyl group, aryloxycarbonyl group, arylalkyloxycarbonyl group, heteroaryloxycarbonyl group or cyano group.

Applicants respectfully submit that the present claimed invention, as defined by amended Claim 1, is not anticipated or rendered obvious by Oguma because Oguma at least fails to explicitly disclose a polymer compound having a repeating unit represented by present formula (3). In addition, the Examiner has not adequately identified a reason that would have led a person of ordinary skill in the art in the relevant field to arrive at the presently claimed polymer

compound having a repeating unit represented by the formula (3), as defined in amended Claim 1.

To maintain the rejection under 35 U.S.C. § 103, the cited reference Oguma must teach or suggest each and every element of the claim. As noted above, Oguma fails to specifically disclose a compound having a repeating unit represented by present formula (3). In addition, it is necessary to identify "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed invention does." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1731 (2007). As explained below, the Examiner has failed to provide such a reason.

The Examiner's position is that Oguma broadly teaches a polymer light emitting material which comprises a polymer compound that can be composed of a variety of repeating units. However, Applicants respectfully submit that the broad teaching of repeating units in Oguma and all their various permutations would not guide one of ordinary skill in the art to arrive at the presently claimed composition. Following *KSR*, in chemical cases involving new compounds, "it remains necessary to identify some reason that would have led a chemist to modify a known compound *in a particular manner* to establish *prima facie* obviousness of a new claimed compound" (emphasis added). *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Cir. 2007). Oguma broadly lists repeating unit 31 among over 131 possible repeating units (see, for example, formulae 1-125, A-F) that *could* comprise the polymer compound to make the polymer light emitting material. Oguma does not teach why selecting repeating unit 31 in particular would be desirable. Furthermore, Oguma does not include repeating unit 31 as one of its preferable repeating units (repeating units (7)-(12)). Then, even if repeating unit 31 is somehow selected from among the at least 131 other choices, Oguma does

not explicitly disclose that Ar^1 and Ar^2 are phenyl, X^1 and X^2 are both $C(R^1)(R^2)$, and that one of the two $C(R^1)(R^2)$ is replaced with an oxygen atom. Thus, the Examiner has failed to establish *prima facie* obviousness of the presently claimed composition because there is no guidance to specifically select repeating unit 31 among the numerous repeating units listed in Oguma and there is no guidance to specifically modify it to arrive at the presently claimed invention.

The Examiner's position is essentially an "obvious to try" rationale, but the Examiner's rationale does not satisfy the "obvious to try" standard as set forth in *KSR* and in recent Federal Circuit case law. An "obvious to try" rationale requires a reasoned articulation that there had been a finite number of known, predictable solutions, with a reasonable expectation of success. *KSR*, 127 S. Ct. at 1742. Moreover, such articulated reasoning is even more necessary in chemical cases, such as here, because the chemical arts are unpredictable and potential solutions would less likely be genuinely predictable:

> "[T]he Supreme Court's analysis in *KSR* presumes that the record before the time of invention would supply some reasons for narrowing the prior art universe to a "finite number of identified, predictable solutions," 127 S. Ct. at 1742. In *Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc.*, 520 F.3d 1358, 1364 (Fed. Cir. 2008), this court further explained that this "easily traversed, small and finite number of alternatives . . . might support an inference of obviousness." **To the extent an art is unpredictable, as the chemical arts often are, *KSR's* focus on these "identified, predictable solutions" may present a difficult hurdle because potential solutions are less likely to be genuinely predictable.**" (*emphasis added*)
> *Eisai Co. Ltd. v. Dr. Reddy's Labs., Ltd.*, 533 F.3d 1353, 1359 \
> Fed. Cir. 2008).

However, in the Office Action, the Examiner merely concludes that it would have been logical to select repeating unit 31 from a variety of repeating units and modify its substituents to arrive at claimed formula (3). This is an impermissible application of an "obvious to try"

rationale to "vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful." *In re Kubin*, 561 F.3d 1351, 1359 (Fed. Cir. 2009) (citing *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988)). Thus, the Examiner has failed to provide a reason to specifically choose and favor repeating unit 31 among over 131 other choices. As mentioned above, repeating unit 31 is not even one of the preferable repeating units disclosed in Oguma.

Further, Oguma only provides a very general disclosure that among over 131 repeating units, repeating unit 31 may be used to comprise a polymer compound to make the polymer light emitting material, failing to provide any additional guidance on why this one particular component should be used or how one having ordinary skill would arrive at the specific combination. Thus, without any additional guidance, it is unlikely for one of ordinary skill in the art to have a reasonable expectation of success in deriving the claimed formula (3). Clearly, the testing of all the listed components with various substituents to identify the claimed formula (3), without any degree of predictability as to which compounds would possess the claimed compound's effects, is not the easily traversed, small and finite number of alternatives that *KSR* suggested might support an inference of obviousness. Without some articulated reasoning by the Examiner to narrow the prior art alternatives to a small, finite number of predictable alternatives, each of which a person of ordinary skill in the art would have possessed a reasonable expectation of success in pursuing, a finding of obviousness based on an "obvious to try" rationale is inappropriate. *Eisai*, 533 F.3d at 1359.

In view of the above, Applicants respectfully submit that the presently claimed invention is not obvious over Oguma, and therefore respectfully request withdrawal of the § 103 rejection of Claims 1-10 and 15-27 based on Oguma.

At page 8 of the Office Action, Claims 1-10 and 15-27 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2003/0168656 (Kobayashi) in view of Oguma.

Applicants traverse and respectfully request the Examiner to reconsider in view of the following remarks.

Kobayashi does not disclose or suggest a compound having a repeating unit represented by formula (3) as recited in amended Claim 1, and therefore, does not anticipate or render obvious the presently claimed invention. Oguma does not remedy the deficiencies of Kobayashi for the reasons discussed above.

Accordingly, withdrawal of the § 103(a) rejection of claims 1-10 and 15-27 based on Kobayashi in view of Oguma is respectfully requested.

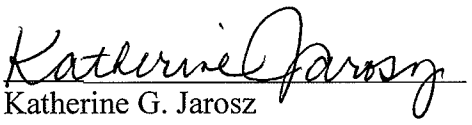
At page 15 of the Office Action, Claims 1-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over Claims 1-9, 23-36 and 28-30 of copending Application No. 10/532,937 (Doi) in view of Applicants' admitted prior art.

Applicants defer response to this rejection as it is provisional.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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